

Core Team Mtg.—State Assessment of Forest Resources (SAFR)

Notes for April 7, 2009 meeting

Core Team/Stakeholder Committee Member Attendees:

- Steve Kimball – Idaho Department of Lands (co-lead); National Fire Plan Coordinator
- David Stephenson – Idaho Department of Lands (co-lead); Urban Interface/Planning Prog. Mgr.
- Mike Bowman – Idaho Community Forestry Advisory Council
- Mike DeArmond – US Bureau of Land Management; Forester
- Frank Gariglio – Natural Resource Conservation Service; State Forester
- Craig Glazer – Idaho Panhandle National Forest; Deputy Forest Fire Management Officer
- Kurt Mettler – Coeur d'Alene Tribe; Forestry Program Manager
- Bob Unnasch – The Nature Conservancy; Director of Science
- Steve Winward – US Forest Service Region 4; GIS Specialist
- Ara Andrea – Idaho Department of Lands, Service & Regulatory Program Manager; NRCS State Technical Committee Representative
- Andy Brunelle – US Forest Service; Capitol City Coordinator
- Bob Helmer – Idaho Department of Lands; Forest Management Bureau Chief
- Carol Randall – Idaho Panhandle National Forest; Entomologist
- Ed Warner – Idaho Department of Lands; Idaho Forest Legacy Program Manager

Committee Members Unable to Attend:

- Greg Servheen—Idaho Department of Fish and Game; Wildlife Program Coordinator

Committee Staff Attendees:

- Chris Clay – Idaho Department of Lands; GIS/Cartography Program Manager
- Tom Eckberg – Idaho Department of Lands; Forest Health Resource Specialist
- Mary Fritz – Idaho Department of Lands; Planning and Development Specialist
- Suzie Jude – Idaho Department of Lands; Forest Stewardship Program Data Coordinator
- Meghan Lonneker – Idaho Department of Lands; GIS Analyst
- Andrew Mock – Idaho Department of Lands; GIS Analyst

1) Welcome, Introduction – Steve and Dave

2) Review of SAFR Goals, Methodology, Timeline – Dave

The group reviewed the meeting objectives that include a discussion of data by issue, methodology, timeline and assignments/follow-up for the next meeting. The goal of SAFR is to identify key issues to forests in Idaho, both threats and benefits, prioritize them, and then determine what data sets best inform the issues. The SAFR is a requirement of the 2008 Farm Bill for all states that wish to receive funding for State & Private Forestry programs and competitive grants. The intention of SAFR is to assist stakeholders and agencies better focus their priority projects. At the first meeting, we identified issues by the larger stakeholder group. Since then, the list of priority issues has been pared down to key issues (see notes for today's meeting). The last meeting, in March, further refined issues and located data sets related to the issues. At end of today's meeting, we hope to identify final data sets so that we may begin developing geospatial maps for each issue. We may not answer all our questions today, but we can pursue these outside the meeting. The goal is to try to do the best job we can now, while balancing time constraints and data availability.

3) Review & Refine Data Sets for Each Key Issue – All

1. Forest Health (Forested areas at risk of declining health)

Discussion: Meghan reported that she has further refined and improved the layers. She has also just received new data from the Idaho Department of Agriculture on invasive plant species. Meghan asked should the Forest Health layer include invasive plant species. Carol clarified there are 57 state designated noxious plants. However, there are other noxious plants that are not listed yet by the state. Further discussion followed. Since landowners are not required by law to spray/treat non-listed plant species, they will be excluded from the analysis; but can be addressed in the SAFR narrative. Meghan will merge both the BLM and DOA data sets for the 57 designated invasive noxious plant species.

IDL has the most recent aerial insect and disease detection data. The group looked at an example of what can be done with the I&D layer; it includes aerial detection results from 2003-07. Can we make some predictions or trends about where they will go over the next 15-20 years? Discussion followed regarding these layers not capturing forest diseases well. How critical is this issue when telling us where to prioritize our work? Carol reported the USFS is currently working on a blister rust risk rating system that would inform the disease issue. Ara reported that IDL staff has a broad idea of where blister rust and armillaria are located within their management areas. Carol reported that USFS has a map of the historical distribution of pine and white bark pine, and this can be used as an indicator of where root disease is located.

As an overview of what data sets are available for the Forest Health issue, Andrew has prepared an example that includes aerial detection surveys and the national I&D risk map as source data. The second uses forest inventory analysis (FIA data) and a hazard rating system to develop a map using certain rating criteria. The group needs to decide in the future how best to blend the data for greater stratification. A smaller group consisting of Carol, Tom, Meghan and Dave will develop this. The group concurred.

Discussion followed about the Climate Change issue and how it will be incorporated into the analysis. The projected areas of additional stress will be added as an additional layer to the I&D layer. The group reviewed Brown's map of broad ecotypes (one of two Climate Change models developed by Rehfeldt

and Brown). At the last meeting, we discussed keystone species such as Ponderosa Pine, Lodgepole Pine, White and Grand Fir, and Western Red Cedar. A comment last meeting that those may not be the best indicator species. No-one attending today is familiar with this. Meghan reported that she has layers from the USFS. Nick Crookston is the contact person at USFS; the group will let him advise us which data layer is more relevant for the analysis.

Regarding fragmentation as shown by road density, Ed asked about any other data sets. He reported the Forest Legacy Program Assessment of Need (AON) looked at new residences per thousand acres of forestland. He is not familiar with the data set used to develop the AON map but will research it further with the author of the AON. The group thought we should consider fragmentation as more appropriate for a different issue, such as wildlife or development risk.

2. Wildfire Impacts

Discussion: This layer looks at areas where uncharacteristic wildfire is likely to occur and/or where resources are most at risk. The group discussed how policy affects this issue and whether it can be shown in the layer. The group felt that policy could be addressed in the report narrative.

Discussion followed about considering risk potential and its impact on management and/or prescribed fire policy. There is a statewide map of lands that have a suppression policy, but those lands without a policy are vague due to many variables. Roadless folks key into condition class and WUI. The roadless rule has a standard definition for community protection zones and proximity to Roadless areas—does not represent a significant amount of acreage. In terms of the SAFR, looking at a single landowner issue may not raise it to the level of inclusion within the statewide assessment.

It was suggested the layer contain a display of suppression policy and areas of fire use planned for Wilderness and other areas. All ownerships have a policy but it would be a considerable effort to compile this for multiple landowners. A suggestion was made to factor areas at risk of fire due to forest health issues—this is built into a data set already. Steve Kimball reported the data set the State Fire Working Group worked on has this data but it is based on proximity to communities at risk. There is a difference in the two layers.

Mary Fritz discussed the WFLC bark beetle assessment combined with fire risk layer with priority to actively manage. Steve defined the key drivers for this issue as people and developments at risk. The statewide *Relative Risk to Communities from Wildland Fire in Idaho* Map was felt to be the best model, inclusive of the most relevant datasets, and which is supported by the State Fire Plan Working Group. This model/map will be used to inform this issue.

3. Potential Forest / Canopy Loss to Development & Urbanization

Discussion: This layer will display those forestland areas at greatest risk from development. The national guidance suggests the best data for this layer is Theobald. It compares the difference in development due to population increases from 2000 to 2030. Bob Helmer reported that industrial lands

owned by Potlatch and Forest Capital are up for sale and there are maps available to show where these lands are located. The Theobald model is based on census data and not on current ownership. Discussion followed about industrial lands representing a significant risk to development statewide and including these in this issue. Timber Investment Management Organizations (TIMOs) and Real Estate Investment Trusts (REITs) make (public) declarations on land every 15 years and this information is available. Their land is for sale in 40 to 80 acre parcels. The last current data on Theobald is 2000 with projects out every 10 years to 2030. Dave described how the data is stratified over time. The group decided to include the lands mentioned above and stratify based on distance from roads, slope, etc.

Dave is concerned no threat data has so far been included in SAFR for urban areas—he suggested including urban areas within in this layer. Kurt suggested that this was a misnomer as urban lands are non-forested already. He suggested rephrasing the issue in urban areas to be a loss of canopy—the name of this issue has been modified to reflect this.

4. Recreation pressure (ATV's trespassing, etc.)

Discussion: This layer will focus on recreation pressure to forestlands from ATV's, ORV's and others. Ara commented that next to cattle, this is the biggest degradation to forested landscape. Chris Clay described a layer he created that utilized a buffered surface road system combined with ORV registration with specific assumptions. It does not model reality that some areas are more desirable than others, but it is a simple and straight forward approach that addresses distance from population centers and current and/or projected areas of high motorized use in Idaho. A final filter was applied for endowment lands, but a statewide layer is available to use in SAFR if desired. This is a raster data layer.

Discussion followed about how to identify areas of higher recreation use. It was suggested that we look a road density. There was a concern about double counting while measuring two different phenomena. What about counties that allow use of ATVs on county roads or actively promote their use? Steve Kimball has requested additional data from Idaho Parks & Recreation on this issue and will follow up with them. Unless we get additional or better data, we will use Chris's model.

5. Wildlife and Rare Plant Communities

Discussion: Last time we included plant communities with wildlife data set and the consensus is to keep them here. The group discussed the various data sets available for this layer. Discussion followed about whether to include all T&E species or use a smaller "keystone" group such as what was done in the IDL endowment assessment. Data from Idaho's CDC is "generalized" meaning it does not reflect exact locations but a general location instead. Bob Unnasch commented that because it is "occurrence" data and may underreport wilderness and roadless area as no one is present there to record specie(s) presence. Dave explained that this is not necessarily a bad thing when it comes to the data set, as project work will likely not take place in wilderness areas. Bob Unnasch suggested that priority conservation areas from Idaho's Comprehensive Wildlife Conservation Strategy should be considered for this data layer. It was determined that more work with Greg Servheen will be needed on how to best use the various data sets. The group discussed whether areas the layer defines will limit project work or be actively managed. This would depend upon the nature of the project work. Dave asked if the ICWCS

data supersedes TNC's Priority Conservation Areas data set. Bob reported that TNC priority areas overlap well with Fish & Game's data set. Bob suggested intersection of both these layers to see where outliers are. The T&E layer is included in the Conservancy's priority areas data set. The TNC layer also includes anadromous fish, bull trout and some rare species. The ICWCS layer also included fish species. Regarding key game species data, Chris questions what federally listed species have critical habitat in Idaho. Andrew has this list and it includes bull trout, steelhead, Chinook (and others?). These species may be given more emphasis in the layer. Chris suggested that the US Fish & Wildlife Service, who has responsibility for identifying critical habitat, may have corresponding data sets available through their regional office.

Chris also reported that Idaho Fish & Game has data sets available from 2006 that show statewide game harvest tallies by species linked to hunting units—the resolution may be coarse though. Is this a high value or a risk within the assessment? Dave suggested that game harvest may fall into the economic potential or connecting with nature issues.

6. Water quality and quantity

Discussion: This layer will look at areas where forestry can have the greatest impact on water quality and quantity and where the need is greatest. These areas include impaired waterways, well locations, major aquifers and recharge areas, impervious surfaces, and water temperature.

Discussion followed regarding how to use the point data for well locations. Are wells a driver in the larger scheme? Natural gas power plants use huge amounts of water out of aquifers. Well data is interesting as it relates to development pressures. Can we qualify each point as a well type? They are a huge draw for municipalities. Municipalities take from aquifers and surface water sources. In terms of water quantity, agriculture is a big user of water. Dave noted that these topics have been discussed at previous meetings and resulted in the list of potential data sets we are considering today.

The example map layer developed by Andrew and Meghan shows the municipal water supply at the HUC-5 level. The source level (point) data is not as coarse as depicted in the map and displaying it at the HUC-6 level may produce finer scale resolution. Inclusion of recharge areas to surface water intakes is desired as well. It was clarified that the impaired lakes and ponds layer is included in the data set Meghan is working with. Chris reported that the 305(b) list layer includes impairment attributes and can be sorted for temperature. The resulting layer could be weighted higher due to canopy removal.

Data used will be impaired rivers and lakes (considering attributes within dataset), major aquifers and impervious surfaces in urban areas.

7. Air quality

Discussion: With this layer, the group is looking at areas where forests most benefit air quality, carbon dioxide removal, ozone reduction, non-attainment areas, particulates, and air shed locations related to smoke management for population centers. The impervious surface to canopy ratio within communities is one example of where additional canopy would provide greater benefit.

Meghan displayed a layer showing statewide above-ground dry biomass in tons/hectare at 30 meter resolution. This vegetation layer is a surrogate for carbon sink. The group discussed where in the analysis issues a biomass layer should go. Should it be a layer on its own? Is biomass managed as a condition or as functionality? Should those areas with higher tonnage of biomass be the focus of more attention? If we look at biomass based on extraction, the distance to marketability may have value. Meghan reported the biomass layer includes juniper vegetation, so can't use it for economic biomass data layer. Some in group are unsure about this layer in terms of where management should take place.

There is consensus in the group that the biomass layer can be used for carbon sequestration and economic viability. A canopy cover layer as a proxy for biomass was recommended rather than the biomass data set as it contains non-merchantable vegetation (juniper, etc.). To locate the biomass layer on the internet go to www.whrc.org and click on NBDC. The biomass layer will not be included in the data sets for this issue.

Next the group discussed data sets for non-attainment areas and airshed impact zones. These layers will focus on removal of biomass in order to limit the potential for areas to burn. Canopy and impervious surface datasets also impact air quality.

Data used will be fire impact zones, non-attainment areas, and canopy in urban areas.

8. Sustainable Forest-based Markets

Discussion: After discussion (see below) on available information and exactly what we are trying to inform with this issue, the group decided the focus was really on sustaining existing or planned forest-based markets. So, the issue title was changed to Sustainable Forest-based Markets in lieu of Economic Potential/Sustainable Communities. While we may not be able to do much with markets in areas where mills have closed, we should prioritize working in areas from which existing or planned mills and wood-based markets will draw.

We have datasets of mill locations and biomass utilization points. Dave recommended we buffer distance along roads from those points to determine where likely supplies will come from. Discussion followed on what to use to show forest productivity. Is there FIA data available that would indicate productivity on all ownerships? Is information from Avista that shows where industrial photovoltaic and other energy (cogen) contracts are located? What are facilities in other states like Oregon, Washington State, & Montana doing with wind and other alternatives? Our contact is Dave Adkins at USFS he may have regional information. What constitutes mill sites? Mill site data is broken down to various types of existing facilities. One point may represent several mill facilities types so may want to weight these differently. No biomass energy or heat generation shown on mill data set. Sourcing areas change based upon the type of mill or energy facility. How do we change that distance based upon the facility? Source logyards feed sawmills, etc. Bob Helmer has information he can provide about sourcing distance information based on break even costs for fuels. Distance should be based upon facility, closer the resource higher the weight/value. This is more of a critical issue in the southern part of the state where haul distances are greater where mill facilities may be in Montana and a five-hour haul. Where do we start looking at the buffered areas? It will vary by ownership especially in the current economic market. This represents a data gap for public information—proprietary by industrial ownership.

Are high rates of unemployment an issue? Socioeconomic profiles are available for each county. Do we want to factor economic need into the layer? Perhaps when determining a project in areas that are weighted the same, a higher unemployment rate may be the deciding factor. City data may be finer scale data than county scale. Dave suggested that we not include this in the assessment, but instead include some discussion on economics as part of the response plan.

Suggested data sets to look at for forest productivity include where forests are or where biomass is located to give higher weight. Should the value of vegetation be based upon its value at the mill? Vegetations is more than just the commodity utilization value— look at other values such as esthetics, ecosystem services, recreation, etc. These values are captured in the other data layers. Are site index data available? IDL is working on this currently with data available for only two counties. No tree specific data in NRCS (soil) data. Idaho counties value productivity using low, medium and high productivity levels. There is a data gap for forest productivity in Idaho and this might be a very good project to fund in the future. In Montana, the University has 1000 permanent plots that measure site productivity. The vegetation-type data set Andrew is working with is based upon ground conditions in 2000. Do we want to look at specific forest species in terms of the value on the ground and distance to the milling facility? One suggestion is to use FIA data and not worry about species type. That is the biomass layer—potential vegetation that could go to mills. Species is important when determining what mills want and provide highest value. Merge biomass and cover type (dominant species except cedar). Measure all economic values including recreation, wildlife, esthetics, etc. How do we portray this geospatially? There are economic impacts for wildlife – hunting zones, licenses, etc. All resources have an economic value. We need to put some bookends on this. Economic value – does this mean just timber or are there other values for the resource? Meghan and Andrew will intersect the biomass layer with vegetation type layer. Have we defined this issue enough? Is there an inappropriate title for this issue? Should we rename the issue to Forest- based Sustainable Communities? The group will do more checking – UI policy analysis group for narrative. Mike Bowman knows of an integrative study at UI that shows geospatially throughout Idaho where we can expect more benefits to the state in terms of timber, water, etc. Mike will track this down for the group. It's called the Sustainable Community Project.

Dave says that if we have a layer that covers the economics and includes timber, water, wildlife, etc., we can use that but have it in addition to the timber layer. Steve agrees but suggests the group look at which of the resources bring in more value (stratification within the layer). Since we are already including issue layers on water, wildlife, etc., it is likely best to keep this focused on forest products-based markets—a critical issue in Idaho and the West.

Datasets to be used: Mills, current and planned biomass facilities, roads and NLCD forest canopy.

9. Healthy Forest Ecosystems (Areas of high conservation value)

Discussion: This layer will identify high value ecosystems worth preserving and areas of high conservation value. This layer is important for the Forest Legacy Program and will be built into the FLP Assessment of Need. Ecosystems and connectivity are critical for wildlife corridors across the state. TNC data will provide us with some good data. Chris Clay suggested the group also look at the NatureServe website for ecosystem data. Data set we have is fire resilient forest vegetation—the idea is to look at areas that don't vary from historical fire regimes. Is that a driver for forest acquisition? Not

acquisition but restoration through maintaining those areas. There are areas that we may want to protect through acquisition. This might change over time though, so it may not be a driver. Fire not the driver but the deviation from historical fire regime. If that's the case, then everything is temporal. Healthy areas need to have fire go through every 5 to 10 years to maintain a healthy ecosystem. Caution should be used when utilizing fire regime condition class as it's not meant to be used for a single state. The national data for fire regime condition class is very rough in scale and has a disclaimer how it should be used for smaller regions. Most other layers in the analysis have been developed using either LANDSAT or LANDFIRE based products. The scale for SAFR is large enough (statewide) so we can use this data. The concern is that the output for the Healthy Forest Ecosystems layer will produce fairly small polygons and not a statewide image. Is this appropriate when determining acquisition or other management activities? The current FLP AON areas are huge. Next step following SAFR is for conservation groups including FLP to acquire properties. There was a problem using the data in the Roadless Area data sets due to the scale of the data. Additional checking on the disclaimer is needed or look for a more current data set. Steve Kimball has an email from the author of the data set he will share with the group. We will check into Nature Serve and also check with Bob Unnasch about TNCs data set.

10. Connecting People with Nature

Discussion continued regarding outdoor opportunities for connections with nature. Chris Clay reported that Idaho Parks & Recreation has layer of recreation facilities for many ownerships and types – they are point data. Are we talking about narrow or wide outdoor experiences? Some expressed that geospatial data won't tell us about this problem. Activities and day trips are important in connecting children with nature. How do we include environmental education programs like Project Learning Tree in the geospatial layer? Include in narrative. Recognize where we have opportunities and where we don't.

There is an ICBEMP data set available for dispersed recreation. Check with Michelle Youngquist to see if she has a list of PLT locations/programs. Mike Bowman would like to concentrate on major learning centers/programs for youth. Are we talking only about kids though? There are a lot of types of connections with nature and some are more important than others. Our focus is not only education per se with this issue. Other opportunities include hunting and fishing—should they be included in this issue? Ducks Unlimited and others may be a good source of geospatial data. Game harvest data by hunting units available— this is may be a good representation of connecting with nature.

4) Action Plan – What's next?

Frank Gariglio suggested we work on weighing the data sets. And, rather than a core group or stakeholder determining weights, ask specific questions, i.e. What are the most important data layers to you, what will you use to determine treatments, what treatment and projects are most important. Frank is really into forest health projects so that's his highest priority. Ask stakeholders how they'll use the product—this will help with weights. How often will the assessment be updated-this will affect

weights. Think about a community forestry map, WUI map, upland (away from WUI) or a remote map.

Dave Stephenson reported that the FSP SAP used questionnaire system and it worked well in that assessment. But here, depending upon who answers the question, this will affect the weighting and may be biased a certain direction. He suggests (the core group) will know more about the data and this will assist in how the data is prioritized or issues weighted.

Lots of data- is it manageable? Meghan said the data is manageable. Chris Clay is concerned about the amount of data so far and asked we consider what our drivers are for the assessment. Steve Kimball asked that we do some sorts (high, medium, low) and throw out the low as they are not the drivers. Steve wants to deal with the most important drivers Medium and High and explain in the narrative why low sort was thrown out. Narrow down the data sets to those that are most important and best inform the issues. Some data layers are drivers but not necessarily all – others are supportive. Questions about the (modeling) process followed. SAFR will not be a SAP-like analysis because national leaders wanted SAFR to be a more state driven assessment with some suggested data sets. Dave Stephenson is concerned about voting by persons not familiar with content of the data sets. There will be a map layer for each issue and the end result will be a layered process.

It was suggested that the core group do more work through email prior to meetings. We anticipate issue maps will be available to review by core group prior to the next meeting. A first draft integrated map will be ready before next meeting. Dave will be working with Meghan and Andrew to provide direction on the layer maps.

Internal IDL staff will meet to discuss layer development April 17, 2009.

A date for the next core group meeting was not scheduled. It may be later into June. We will try to do as much as we can via e-mail and internet data postings.

Meeting adjourned 2:05 p.m.